QP
356
.15
J68

THE JOURNAL

OF

COMPARATIVE NEUROLOGY

FOUNDED BY C. L. HERRICK, 1891

EDITORIAL BOARD

W. MAXWELL COWAN, Managing Editor
Washington University School of Medicine
Saint Louis, Missouri

JAY B. ANGEVINE, JR.
University of Arizona

THEODOR W. BLACKSTAD
University of Aarhus
Denmark

MILTON W. BRIGHTMAN
National Institutes of Health

RICHARD P. BUNGE
Washington University

MALCOLM B. CARPENTER
Columbia University

JOHN E. DOWLING
Harvard University

R. W. GUILLERY
University of Wisconsin

HARVEY J. KARTEN
State University of New York

LAWRENCE KRUGER
University of California
Los Angeles

WALLE J. H. NAUTA
Massachusetts Institute
of Technology

SANFORD PALAY
Harvard Medical School

RICHARD L. SIDMAN
Harvard Medical School

JEROME SUTIN
Emory University

J. SZENTÁGOTHAI
Semmelweis University
Hungary

DAVID G. WHITLOCK
University of Colorado

VOLUME 153

JANUARY — FEBRUARY 1974

PUBLISHED BY

THE WISTAR INSTITUTE OF ANATOMY AND BIOLOGY

PHILADELPHIA, PA.

COPYRIGHT © 1974 BY
THE WISTAR INSTITUTE PRESS
All rights reserved

139

Contents

No. 1 JANUARY 1, 1974

MARY A. GRILLO, LOUISE JACOBS AND JULIUS H. COMROE, JR. A Combined Fluorescence Histochemical and Electron Microscopic Method for Studying Special Monoamine-containing Cells (SIF Cells) 1

M. SINDOU, C. QUOEX AND C. BALEYDIER. Fiber Organization at the Posterior Spinal Cord-Rootlet Junction in Man 15

A. BIGNAMI AND D. DAHL. Astrocyte-specific Protein and Neuroglial Differentiation. An Immunofluorescence Study with Antibodies to the Glial Fibrillary Acidic Protein 27

RICHARD E. COGGESHALL, JOE DAN COULTER AND WILLIAM D. WILLIS, JR. Unmyelinated Axons in the Ventral Roots of the Cat Lumbosacral Enlargement 39

WILLIAM L. R. CRUCE. The Anatomical Organization of Hindlimb Motoneurons in the Lumbar Spinal Cord of the Frog, *Rana catesbiana* 59

PETER L. STRICK AND PETER STERLING. Synaptic Termination of Afferents from the Ventrolateral Nucleus of the Thalamus in the Cat Motor Cortex. A Light and Electron Microscope Study 77

No. 2 JANUARY 15, 1974

ROBERT P. SKOFF AND VIKTOR HAMBURGER. Fine Structure of Dendritic and Axonal Growth Cones in Embryonic Chick Spinal Cord 107

ALPHONSE E. LEURE-DUPREE. Observations on the Synaptic Organization of the Retina of the Albino Rat: A Light and Electron Microscopic Study 149

MICHAEL B. PRITZ. Ascending Connections of a Midbrain Auditory Area in a Crocodile, *Caiman crocodilus* 179

MICHAEL B. PRITZ. Ascending Connections of a Thalamic Auditory Area in a Crocodile, *Caiman crocodilus* 199

No. 3 FEBRUARY 1, 1974

J. A. F. Cruce. A Cytoarchitectonic Study of the Diencephalon of the Tegu Lizard, *Tupinambis nigropunctatus* 215

K. J. Sanderson. Lamination of the Dorsal Lateral Geniculate Nucleus in Carnivores of the Weasel (*Mustelidae*), Raccoon (*Procyonidae*) and Fox (*Canidae*) Families 239

R. L. Tapp. Axon Numbers and Distribution, Myelin Thickness, and the Reconstruction of the Compound Action Potential in the Optic Nerve of the Teleost: *Eugerres plumieri* 267

Lois A. Gillilan. Blood Supply to Brains of Ungulates with and without a Rete Mirabile Caroticum 275

A. Privat, M. J. Drian and P. Mandon. Synaptogenesis in the Outgrowth of Rat Cerebellum in Organized Culture 291

Stephen Yazulla. Intraretinal Differentiation in the Synaptic Organization of the Inner Plexiform Layer of the Pigeon Retina 309

No. 4 FEBRUARY 15, 1974

Miles W. Cloyd and Frank N. Low. Scanning Electron Microscopy of the Subarachnoid Space in the Dog. I. Spinal Cord Levels 325

Jack E. Hubbard and Vincenzo Di Carlo. Fluorescence Histochemistry of Monoamine-containing Cell Bodies in the Brain Stem of the Squirrel Monkey (*Saimiri sciureus*). II. Catecholamine-containing Groups 369

Jack E. Hubbard and Vincenzo Di Carlo. Fluorescence Histochemistry of Monoamine-containing Cell Bodies in the Brain Stem of the Squirrel Monkey (*Saimiri sciureus*). III. Serotonin-containing Groups 385

Thomas E. Ogden. The Morphology of Retinal Neurons of the Owl Monkey *Aotes* 399

Index to Volume 153 429